

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 51

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte BRAD L. KIRKWOOD,  
THOMAS S. LUHMAN,  
RONALD R. STEPHENSON,  
and  
MICHAEL STRASIK

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Appeal No. 2002-0405<sup>1</sup>  
Application No. 07/325,269

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ON BRIEF

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Before WILLIAM F. SMITH, Administrative Patent Judge, McKELVEY, Senior Administrative Patent Judge, and POTEATE, Administrative Patent Judge.

POTEATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 3, 19 and 22-24. Claims 1, 2, 4-18, 20 and

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<sup>1</sup>This Merits Panel has reviewed this appeal concurrently with Appeal No. 2001-0087, related Application No. 08/960,582, a divisional of the present application. In the present case, the Examiner's Answer was mailed on June 10, 1997. For reasons not clear from the record, the file was not forwarded to the Board for review of the appeal until January 16, 2002. In view of these circumstances, we have taken this case up for decision out of turn.

21, which are all of the claims remaining in the application, are allowed. Claims 3, 19 and 22 are representative of the subject matter on appeal and are reproduced below:

3. A superconducting mixed-metal oxide obtainable by the method of Claim 1.<sup>2</sup>

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<sup>2</sup>Claim 1 reads as follows:

1. A method for preparing a solid superconducting mixed-metal oxide in a predetermined shape and form, comprising the steps of:

(a) providing a solution of salts of metals contained in said superconducting mixed metal oxide of a predetermined composition, each of said salts being present in an amount necessary to provide the respective predetermined stoichiometric amount of a metal required in said superconductive mixed metal oxide; the counterions of each metal ion, or the hydrolysis products of said counterions, in said solution of salts being removable from said solution by evaporative methods;

(b) subjecting said solution to hydrolyzing conditions and removing said counterions and hydrolysis products thereof from said solution by evaporative methods with a substantial portion of the solvent;

(c) converting said metal ions to a mixed-metal oxide precursor of said superconducting mixed-metal oxide;

(d) peptizing said mixed-metal oxide precursor to form a viscous polymeric sol;

(e) forming said viscous polymeric sol into a predetermined shape and form and heat-setting said sol into a flexible, ductile, handleable gel;

(f) firing said gel in the presence of oxygen at a temperature and for a period of time sufficient to volatilize any remaining vapors and organic materials to form said solid superconducting mixed metal oxide.

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19. A solid superconducting mixed-metal oxide obtainable by the method of Claims 5, 6, 7, 8, 9, 15, 16, 17 or 18.<sup>3</sup>

22. A solid superconducting mixed metal oxide of the formulae  $A_2GCu_3O_{7-x}$  or  $[Y_{1-y}Ba_y]_2CuO_{4-d}$  wherein:

- A is a Group II metal;
- G is a Group III metal or a lanthanide;
- x is from about 2 to 3;
- y is 0 or 1; and
- d is 0-4.

The prior art relied upon by the examiner is:

Hor et al. (Hor), "High-Pressure Study of the New Y-Ba-Cu-O Superconducting Compound System," Phys. Rev. Letters, 58(9), pp. 911-912 (2 March 1987).

In addition, this Merits Panel relies on the following references:

Wu et al. (Wu), "Superconductivity at 93 K in a New Mixed-Phase Y-Ba-Cu-O Compound System at Ambient Pressure," Phys. Rev. Letters, 58(9), pp. 908-910 (2 March 1987).<sup>4</sup>

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<sup>3</sup>Claims 5-9 and 15-18 depend from claim 1, see, supra, note 2. For clarity, we indicate the respective claims from which claim 19 depends following the "/".

<sup>4</sup>This document describes the compounds examined in Hor. See Hor, p. 911, col. 2.

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Chu et al. (Chu), "Evidence for Superconductivity above 40 K in the La-Ba-Cu-O Compound System," Phys. Rev. Letters, 58(4), pp. 405-407 (20 January 1987).<sup>5</sup>

Bednorz et al. (Bednorz), "Possible High  $T_c$  Superconductivity in the Ba-La-Cu-O System," Z. Phys. B-Condensed Matter, 64, pp. 189-193 (1986).

Bednorz et al. (Ref. No. [17]), "Phase Diagram of the  $(\text{LaAlO}_3)_{1-x}(\text{SrTiO}_3)_x$  Solid-Solution System, for  $x \leq 0.8$ ," Mat. Res. Bull., 84, pp. 181-187 (1983).<sup>6</sup>

#### GROUND OF REJECTION

Claims 3, 19 and 22-24 stand rejected under 35 U.S.C. § 102(a) or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Hor.

Having found stronger evidence of unpatentability, we vacate this rejection in favor of new grounds of rejection under the provisions of 37 CFR § 1.196(b) as set forth below.

#### BACKGROUND

The present invention relates to mixed metal oxide superconducting materials. According to appellants, superconductors produced by the sintering method (a conventional process) have various drawbacks which limit their usefulness in

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<sup>5</sup>This document is referenced by Hor as disclosing the solid-state reaction method used for preparation of the compounds examined in Hor. See, supra, note 4.

<sup>6</sup>This document describes the coprecipitation method used in Bednorz. See Bednorz, p. 190, col. 1.

high-current applications. Specification, p. 2, ll. 7-29. These drawbacks include nonhomogeneity, brittleness and hardness, all of which contribute to difficulty in fabricating parts utilized in high-current applications. Id. According to appellants, they have developed a sol-gel method for preparing superconducting mixed-metal oxides which are different in structure and performance characteristics than those of the prior art. Appeal Brief, Paper No. 46, pp. 5-6. As evidence of the differences between superconductors prepared by appellants' sol-gel process versus a conventional process, appellants rely on a 1994 article written by Gotor et al.<sup>7</sup> According to appellants, "[t]he paper, which postdates Applicants effective filing date by some 6 years and therefore is not prior art, describes experimental research comparing 1-2-3 superconductors prepared by an undescribed 'commercial' process with products made by a sol-gel process." Appeal Brief, p. 5.

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<sup>7</sup>Gotor et al. (Gotor), "Grain growth, sintering and weak links in YBCO ceramics: advantage of sol-gel process," Physica C 235-240, pp. 463-464 (1994).

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DELIBERATIONS

While we have reviewed and evaluated the entire record in rendering our decision, we have given particular consideration to the following materials:

1. the instant specification, including all of the claims on appeal;

2. appellants' Appeal Brief and Reply Brief (Paper Nos. 46 and 48);

3. the Examiner's Answer (Paper No. 47);

4. the eleven Declarations under 37 CFR § 1.131 received on the following dates:

Dec. 11, 1989 (Paper No. 7);  
Jul. 9, 1990 (Paper No. 10);  
Jul. 9, 1990 (Supplement) (Paper No. 10);  
Jul. 20, 1990 (Paper No. 12);  
Jul. 20, 1990 (Supplement) (Paper No. 12);  
Dec. 30, 1991 (Paper No. 20);  
Mar. 10, 1992 (Paper No. 22);  
Oct. 19, 1992 (Paper No. 26);  
Dec. 10, 1992 (Paper No. 29);  
Feb. 14, 1994 (Paper No. 34); and  
Oct. 20, 1995 (Paper No. 40).

5. the above-cited references as well as the documents cited by the examiner and appellants during prosecution; and

6. the materials identified in our Decision in Appeal No. 2001-0087, mailed concurrently with this Decision.

NEW GROUNDS OF REJECTION

1. Claims 22-24 are rejected under 35 U.S.C. § 112, first paragraph.<sup>8</sup> The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected to make the invention commensurate in scope with these claims.

The specification, while being enabling for  $y=0$  and  $d=\text{any positive number less than } 4$ , does not reasonably provide enablement for  $y=1$  or  $d=4$ . See specification, p. 9, ll. 28-32 ("Another metal oxide superconductor, when yttrium is present, is represented by the formula of  $[Y_{1-[y]}Ba_{[y]}]_2 CuO_{4-d}$ , wherein  $d$  is

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<sup>8</sup>"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention."

zero or any positive number less than 4 and [y] is zero or any positive number less than 1.")<sup>9</sup>

2. Claims 3 and 19 are rejected under 35 U.S.C. § 112, second paragraph<sup>10</sup> as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The original description as well as appellants' own statements evidence that the appellants regard their invention as limited to superconductors made by a sol-gel method. See, e.g., specification, p. 10, l. 19-24 ("[I]t is also believed that the superconductor products made according to the present invention are novel and advantageous as compared to the prior art high-temperature mixed metal oxide superconductors which are made by sputtering and sintered powder methods."); Appeal Brief, p. 5 ("Claims 3 and 19 are in 'product-by-process' form, and accordingly, are drawn to those materials resulting from Applicants's [sic] novel sol-gel process.") The term "obtainable

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<sup>9</sup>Additionally, it appears that the claim limitations should be  $0 < y < 1$  and  $0 \leq d < 4$ . If  $y=0$ , then the resultant compound does not contain barium. Similarly, if  $y=1$ , the compound does not contain yttrium and when  $d=4$ , the compound does not contain oxygen.

<sup>10</sup>"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."



by" in claims 3 and 19 encompasses superconductors prepared by any method and, therefore, is not limited to appellants' invention.<sup>11</sup>

3. Claims 3, 19/6 - 19/8 and 19/15 - 19/18 are rejected under 35 U.S.C. § 102(a)<sup>12</sup> as anticipated by or, in the alternative, under 35 U.S.C. § 103<sup>13</sup> as obvious over Bednorz.

Claims 3, and 19/15 - 19/18

Bednorz discloses a possible high  $T_c$  superconductivity in the Ba-La-Cu-O system. According to Bednorz, compounds

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<sup>11</sup>The text of claims 3 and 19 in the Appendix of Claims (Appeal Brief, p. 10) is incorrect. Claims 3 and 19 as shown in the Appendix do not reflect the amendment received September 5, 1995, wherein these claims were amended to change the phrase "made according to the method of . . . ." to "obtainable by the method of . . . ." Since it appears that appellants intended to limit the scope of these claims to superconductors prepared by a sol-gel method, the patentability of claims 3 and 19 over the prior art has been considered based on this limitation. See, generally, Manual of Patent Examining Procedure, § 2173.06 (8<sup>th</sup> Ed., Aug. 2001), discussing avoidance of piecemeal examination.

<sup>12</sup>"A person shall be entitled to a patent unless -  
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country before the invention thereof by the applicant for patent . . . ."

<sup>13</sup>"(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

exhibiting high temperature superconductivity were prepared by a coprecipitation method. Bednorz, p. 190, col. 1. Claims 3 and 19/15 - 19/18 are product-by-process claims which are directed to superconducting mixed-metal oxides made by a sol-gel method. The patentability of product-by-process claims is based on the product itself and not the method of production. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Where . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product . . . . Whether the rejection is based on "inherency" under 35 U.S.C. § 102, on "prima facie obviousness" under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.

In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977) (citations and footnote omitted).<sup>14</sup> Since there would be no reason to expect that the claimed compounds differ from those of Bednorz, claims 3 and 19/15 - 19/18 are anticipated by, or obvious over, Bednorz.

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<sup>14</sup>Gotor (see discussion, infra, pp. 16-17) does not provide the requisite evidence required to overcome this rejection. The Gotor article does not provide a comparison of the properties of superconductors prepared by a sol-gel process with superconductors made by a coprecipitation process as disclosed in Bednorz (i.e., Ref. No. [17]).

Claims 19/6 - 19/8

Bednorz teaches superconducting compounds containing copper (claim 19/6), barium (claim 19/7), and lanthanum (claim 19/8). Therefore, claims 19/6 - 19/8 are anticipated by, or obvious over, Bednorz for the same reasons discussed above with respect to claims 3 and 19/15 - 19/18.

4. Claims 19/5 and 19/9 are rejected under 35 U.S.C. 103 as obvious over Bednorz in view of the admitted prior art.

Claim 19/5

Bednorz discloses superconducting mixed metal oxides prepared by the coprecipitation method disclosed in Ref. No. [17]. Bednorz, p. 190, col. 1. Ref. No. [17] discloses a coprecipitation method wherein aqueous solutions of La, Al, Sr and Ti nitrates were added to an aqueous solution of  $(\text{NH}_4)_2\text{CO}_3$  to form metal salts. Ref. No. [17], p. 182. Accordingly, it would have been obvious to have used organic salts to provide the respective predetermined stoichiometric amounts of the metals required in the claimed superconducting mixed metal oxides.

Claim 19/9

The present specification teaches that metal superconductors containing gadolinium-barium-copper "*have been reported* to exhibit superconducting properties." Specification, p. 9, l. 32

- p. 10, l. 3 (emphasis added). Thus, it would have been obvious to have produced a superconducting mixed metal oxide using gadolinium in place of lanthanum given Bednorz' teaching that superconductivity is exhibited in the La-Ba-Cu-O mixed metal oxide system.

5. Claims 3, 19/5 - 19/8 and 19/15 - 19/18 are rejected under 35 U.S.C. § 102(a) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Chu.

Claims 3 and 19/15 - 19/18

Chu discloses superconducting compounds of the La-Ba-Cu-O system. Since there would be no reason to expect that the claimed compounds differ from those of Chu, claims 3 and 19/15 - 19/18 are anticipated by, or obvious over, Chu. See, supra, pp. 9-10 (discussion on patentability of product-by-process claims).

Claim 19/5

Chu discloses the preparation of superconductive mixed metal oxides in the La-Ba-Cu-O system by a solid-state reaction method wherein  $\text{La}_2\text{O}_3$ ,  $\text{CuO}$  and  $\text{BaCO}_3$  (a metal salt) are mixed. Chu, p. 405, col. 1. For the reasons discussed above (see, supra, pp. 9-10), there would be no reason to expect that the claimed compounds differ from those of Chu. Therefore, claim 19/5 is anticipated by, or obvious over, Chu.

Claims 19/6 - 19/8

Chu teaches superconducting mixed metal oxides containing copper (claim 19/6), barium (claim 19/7), and lanthanum (claim 19/8). Since there would be no reason to expect that the claimed compounds differ from those of Chu (see, supra, pp. 9-10), claims 19/6 - 19/8 are anticipated by, or obvious over, Chu.

6. Claims 19/9 and 22-24 are rejected under 35 U.S.C. § 103 as obvious over Chu in view of the admitted prior art.

Claim 19/9

Claim 19/9 is rejected as obvious over Chu in view of the admitted prior art for the same reasons discussed above with respect to Bednorz. See, supra, pp. 11-12.

Claims 22-24

Chu discloses superconducting compositions represented by the formula  $(La_{1-x}-Ba_x)_2CuO_{4-y}$  wherein  $x=0.20$  or  $0.15^{15}$ . Chu, p. 405, col. 1. It would have been obvious to have replaced La with another Group III metal such as Y in the claimed formula given Chu's teaching that Ba may be replaced with Sr, i.e., another Group II metal (Chu, p. 407, col. 2), and the admitted prior art which teaches that yttrium-barium-copper oxide compounds were

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<sup>15</sup>This falls within the range of appellants' invention. See, supra, note 9.

known to have superconducting properties. Specification, p. 9, 1. 32 - p. 10, 1.3. Further, it would have been obvious to have replaced Ba ions with Sr ions in La-Ba-Cu-O superconducting compounds given Chu's teaching of known superconductivity in the La-Sr-Cu-O system. Chu, p. 407, col. 2.

7. Claims 3, 19/5 - 19/8, 19/15 - 19/18 and 22-24 are rejected under 35 U.S.C. § 102(a) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Wu.

Claims 3 and 19/15 - 19/18

Wu discloses a superconducting compound of the Y-Ba-Cu-O system. Since there would be no reason to expect that the claimed compounds differ from those of Wu, claims 3 and 19/15 - 19/18 are anticipated by, or obvious over, Wu. See, supra, pp. 9-10 (discussion on patentability of product-by-process claims).

Claim 19/5

Wu discloses the preparation of superconducting mixed metal oxides in the Y-Ba-Cu-O system by a solid-state reaction method wherein  $Y_2O_3$ , CuO and  $BaCO_3$  are mixed. Wu, p. 908, col. 2. Accordingly, there would be no reason to expect that the claimed compounds would differ from those of Wu (see, supra, p. 9-10), and claims 3 and 19/15 - 19/18 are anticipated by, or obvious over, Wu.

Claims 19/6 - 19/8

Wu teaches superconducting compounds containing copper (claim 19/6), barium (claim 19/7), and lanthanum (claim 19/8). There would be no reason to expect that the claimed compounds would differ from those of Wu (see, supra, pp. 9-10), and claims 19/6 - 19/8 are anticipated by, or obvious over, Wu.

Claims 22-24

Wu discloses superconducting compositions represented by the formula  $(La_{1-x}-Ba_x)CuO_{3-\delta}$  wherein  $x=0.20$  or  $0.15$  (Wu, p. 908, col. 1) as well as "a stable and reproducible superconductivity transition" in compositions having the formula  $(Y_{1-x}-Ba_x)_2CuO_{4-y}$  (Wu, p. 908, abstract and col. 1).<sup>16</sup> Wu further discloses that Ba may be replaced by Sr (claim 24) in the La-Ba-Cu-O system. Wu, p. 908, col. 1. Accordingly, there would be no reason to expect that the claimed compounds would differ from those of Wu (see, supra, pp. 9-10), and claims 22 - 24 are anticipated by, or obvious over, Wu.

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<sup>16</sup>In the Appeal Brief (p. 6), appellants assert that the superconductors of claims 22-24 have superior properties compared to the superconductors described in Hor (the same compounds disclosed in Wu, see, supra, note 4) because Hor obtained multiphase samples and Hor utilized a solid-state method, rather than a sol-gel process to prepare the superconductors. This argument is without merit since claims 22-24 are not limited to single-phase superconductors or "sol-gel derived" superconductors. See In re Mraz, 455 F.2d 1069, 1072-73, 173 USPQ 25, 28 (CCPA 1972).

9. Claim 19/9 is rejected under 35 U.S.C. § 103 as obvious over Wu in view of the admitted prior art.

It would have been obvious to have produced a superconducting mixed metal oxide using gadolinium in place of yttrium given Chu's teaching that superconductivity is exhibited in the Y-Ba-Cu-O mixed metal oxide system. See, supra, pp. 11-12 (discussing the rejection of claim 19/9 as obvious over Bednorz in view of the admitted prior art).

#### OTHER ISSUES

In the event that appellants elect to continue prosecution of this case, we recommend that both appellants and the examiner consider the following related issues:

##### 1. The Gotor Article

Appellants rely on Gotor as providing "unsolicited, independent evidence from researchers having no connection with Boeing or with the present Applicants to suggest that sol-gel products differ from those of the *Hor* prior art because of their method of manufacture." Appeal Brief, p. 5. *Hor* examined Y-Ba-Cu-O compounds prepared through solid-state reaction in accordance with "previously reported" methods, i.e., the methods disclosed in Wu. *Hor*, p. 911, col. 2. Should Appellants rely on



the Gotor article to overcome the new grounds of rejection based on Wu, we note the following deficiencies in regard to the Gotor article.

Gotor compares the properties of superconductors made by a sol-gel method with superconductors made by an undisclosed commercial process. There is no evidence that the sol-gel method utilized by Gotor is the same as that of the present invention. Rebuttal evidence must represent a comparison between the claimed invention and the closest prior art. In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Absent knowing the commercial process used to prepare Gotor's samples, we cannot conclude that Gotor's analysis represents a comparison of sol-gel derived superconductors with the closest prior art. As appellants correctly observe, Gotor's testing is limited to sol-gel powders prepared from an aqueous nitrated solution complexed by citric acid. Reply Brief, p. 2. In addition, Gotor only compares superconductors of the Y-Ba-Cu-O system. The claims are not limited to superconductors made using citric acid, nor are they limited to Y-Ba-Cu-O compounds. A showing of unexpected results must be commensurate in scope with the claims. In re Soni, 54 F.3d 746, 750, 34 USPQ2d 1684, 1688 (Fed. Cir. 1995).

## 2. The Rule 131 Declarations

In the event that the appellants attempt to swear behind the publication date of Wu, i.e., March 2, 1987, we note the following deficiencies in the Rule 131 declarations. In order to establish invention prior to the effective date of a reference, the declarant must "establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application." 37 CFR § 1.131. The declaration filed October 20, 1995 under 37 CFR § 1.131 is insufficient to establish a date of invention prior to March 2, 1987. The declaration relies on events which were documented in an Invention Disclosure. See Oct. 20, 1995 Declaration, paragraphs 4 & 5. However, the Invention Disclosure itself is not provided as an exhibit. The declarants state that one of the inventors discussed the "invention" with scientists on or about February 10, 1987. Id. at paragraph 5. Declarants further allege that the inventors worked "as time and budget allowed throughout February and early March" until completion of the experiments described in Exhibit 1 of their previous declaration. Id. at paragraph 6. These statements alone do not establish due

diligence from a time prior to March 2, 1987 until the alleged actual reduction to practice on March 6, 1987.<sup>17</sup> Id. at paragraph 7. Appellants must state with particularity and provide evidence of the sequence of events which occurred from a specified time prior to March 2 until the actual reduction to practice on March 6. See generally, In re Nelson, 420 F.2d 1079, 164 USPQ 458 (CCPA 1970).

### 3. Double Patenting

Upon remand of the application, the examiner should determine whether claims 3 and 19 should be subject to a provisional double patenting rejection under either statutory<sup>18</sup> or non-statutory<sup>19</sup> grounds as being unpatentable over claims 21-

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<sup>17</sup>In the event that appellants elect to continue prosecution in this case and intend to maintain their reliance on Exhibits 1-3 as showing a reduction to practice on March 6, 1987, we recommend that they provide a typed copy of the exhibits, since the exhibits are not legible in their present form.

<sup>18</sup>35 U.S.C. § 101 prevents two patents from issuing on the same invention, i.e., identical subject matter. In re Vogel, 422 F.2d 438, 440, 164 USPQ 619, 620 (CCPA 1970).

<sup>19</sup>"[D]ouble patenting of the *obviousness* type . . . is a judicially created doctrine grounded in public policy (a policy reflected in the patent statute) rather than based purely on the precise terms of the statute. The purpose of this rejection is to prevent the extension of the term of a patent, even when an express statutory basis for the rejection is missing, by prohibiting the issuance of the claims in a second patent not patentably distinct from the claims of the first patent. . . .

(continued...)

30 of copending application Serial No. 08/960,582.<sup>20</sup>

Independent claim 21 of the copending application recites a superconducting mixed-metal oxide manufactured using the same method steps recited in claim 1, i.e., the method of preparing the superconducting mixed-metal oxide of claim 3. Claim 21 includes two additional process limitations. Claims 22-30 of the copending application depend from claim 21 and recite the same limitations as, and, in fact, are essentially identical to, claims 19/5 - 19/9 and 19/15 - 19/18. Whether the claims are properly rejected on the grounds of statutory or non-statutory double-patenting should be considered in light of In re Thorpe and In re Best, discussed supra pp. 9-10.

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<sup>19</sup>(...continued)

. . . .

. . . It is well-established that a common assignee is entitled to proceed with a terminal disclaimer to overcome a rejection based on double patenting of the obviousness type. . . . Since the second patent would expire simultaneously with the first, this use of a terminal disclaimer is consistent with the policy that the public should be free to use the invention as well as any obvious modifications at the end of the patent's term." In re Longi, 759 F.2d 887, 892-94, 225 USPQ 645, 648-49 (Fed. Cir. 1985) (citations omitted).

<sup>20</sup>The prohibition against a double patenting rejection does not apply where an applicant voluntarily files a divisional application without a requirement for restriction by the examiner. 35 U.S.C. § 121.

4. 35 U.S.C. § 112, First Paragraph

As stated above, we have interpreted claims 3 and 19 as limited to superconductors prepared by a sol-gel process. See, supra, note 11. If, during further prosecution, appellants do not amend the claims to limit the scope to superconductors made by the sol-gel method, then the examiner should consider the propriety of a rejection under 35 U.S.C. § 112, first paragraph. See In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971) (Once it is determined that the subject matter defined by the claims is particular and definite under 35 U.S.C. § 112, second paragraph, the analysis turns to whether the scope of protection sought is supported by the disclosure under 35 U.S.C. § 112, first paragraph.)

TIME PERIOD FOR RESPONSE

This decision contains new grounds of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that, "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the

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following two options with respect to the new grounds of  
rejection to avoid termination of proceedings (37 CFR § 1.197(c))  
as to the rejected claims:

(1) Submit an appropriate amendment of  
the claims so rejected or a showing of facts  
relating to the claims so rejected, or both,  
and have the matter reconsidered by the  
examiner, in which event the application will  
be remanded to the examiner . . . .

(2) Request that the application be  
reheard under § 1.197(b) by the Board of  
Patent Appeals and Interferences upon the  
same record . . . .

No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

VACATED; 37 CFR § 1.196(b)

WILLIAM F. SMITH	)	
Administrative Patent Judge	)	
	)	
	)	BOARD OF PATENT
FRED E. MCKELVEY	)	APPEALS AND
Senior Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
LINDA R. POTEATE	)	
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LRP:hh

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